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(71) Applicant (for all designated States except US): JETSIS  
INTERNATIONAL PTE LTD [SG/SG]; 17 Hwa Yew  
Industrial Building, Mandai Estate #06-1B, Singapore  
729934 (SG).

(72) Inventor; and

(75) Inventor/Applicant (for US only): GADD, Michael,  
William [GB/SG]; Blk 171, Bukit Batok West Avenue 8,  
#20-355, Singapore 650171 (SG).

(74) Agent: DREW & NAPIER LLC; 20 Raffles Place,  
#17-00 Ocean Towers, Singapore 048620 (SG).

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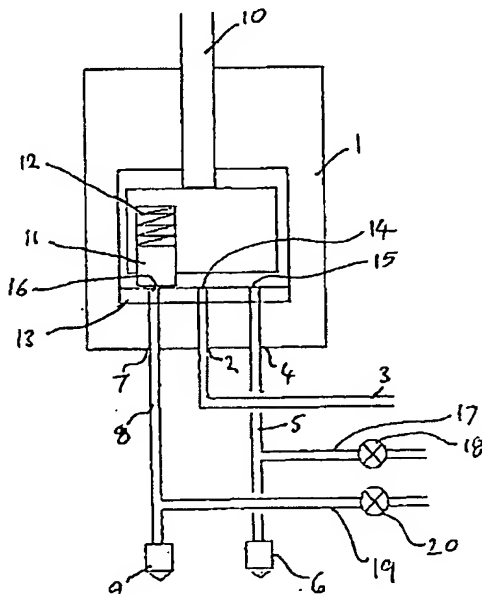
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(54) Title: SWITCHING FLUID FLOW BY DIVERSION



(57) Abstract: A flow of fluid is switched on and off by divert-  
ing the flow to an alternative path. In a preferred application an  
abrasive cutting jet, formed by a flow of abrasive slurry fed via  
a conduit 5 to a cutting jet nozzle 6, is switched on and off by  
diverting the flow at a three way changeover valve 1 to a con-  
duit 8 and bypass nozzle 9. Valves 18, 20 control the connection  
to of a flow of clean auxiliary water to respective outlet ports  
4, 7 of the changeover valve 1 to reduce pressure differentials  
during operation of the changeover valve and to provide clean  
backflows which hydraulically divert the flow of abrasive slurry  
at the changeover valve and allow the changeover valve to open  
and close on a clean, largely abrasive-free flow.

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